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AN 2000:36647 CAPLUS

DN 132:49880

TI Preparation of N-methylpyrrolidone

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SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 8 pp.

CODEN: CNXXEV

KIND DATE PATENT NO.

APPLICATION NO. DATE

PI CN 1173492

A 19980218 CN 1996-106430 19960812

B 20000726 CN 1054843

AB The process comprises dehydrogenation of gaseous 1,4-butanediol in the presence of catalyst at 175-230.degree. and 0.1-1.0 MPa, removing unreacted gas by condensation, and amination of .gamma.-butyrolactone with methylamine and water at 200-300.degree. and 5-10 MPa for 0.5-5 h. The mole ratio of .gamma.-butyrolactone-methylamine-water is 1:1-4:2-9, preferably 1:1-3:3-6. The catalyst is CuaZnCrbZrcOx (a = 0.1-10; b, and/or c = 0.1-5; x = no. of O to satisfy the valency), and reducing with H2 at 150-300.degree. and 0.1-10 MPa for 5-40 h before use. The dilg. gas is selected from H2, N2, CH4, and CO2, the mole ratio of dilg. gas to 1.4-butanediol is 1-50:1.

IC ICM C07D207-267

DT Patent

LA Chinese